Who Succeeds in Mental Health Court? Identifying Predictors of Program Retention and Legal Recidivism

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Statement of the Research Problem

A series of justice-related policy shifts and growing societal demands placed on the criminal justice system to solve our nation's social problems have resulted in the increased and disproportionate incarceration of individuals with serious mental illness (SMI). At any given time, over 1 million individuals with a SMI are believed to be incarcerated or under some type of community corrections supervision (Skeem, Manchak, & Peterson, 2010).

Individuals with SMI are significantly more likely to be arrested and arrested for less serious offenses (Alemagno, Shaffer-King, Tonkin, & Hammel, 2004). Once arrested, they are detained for longer periods of time (Butterfield, 1998), receive longer sentences (James & Glaze, 2006), and are less likely to be granted parole (Lurigio, 2001) than their counterparts who do not have a SMI. Additionally, incarceration and SMI is strongly associated with increased risk of suicide (Slate, 2003), untreated mental illness (James & Glaze, 2006), psychiatric decompensation (Rock, 2001), physical and sexual victimization (Blitz, Wolff, & Shi, 2008), excessive discipline, segregation, and isolation (Lamb, Weinberger, & Gross, 2004), and disruption of treatment, housing, and entitlements (Almquist & Dodd, 2009).

In response to the growing numbers of numbers of individuals with SMI entering the criminal justice system, several diversion programs have been created including the establishment of over 250 mental health courts (MHCs) nationwide (Council of State Governments, 2011). Built on the theoretical framework of therapeutic jurisprudence (Winick & Wexler, 2003), these specialized problem-solving criminal courts have developed with the overarching goal of reducing recidivism by offering volunteering participants a therapeutically focused alternative court process, case

management, and access to needed treatment and other social services in lieu of traditional case processing and sentencing.

While MHCs have grown exponentially, research evaluating their effectiveness has not kept pace and is still emerging. Several studies have found that MHC participants report significantly lower levels of perceived coercion and higher levels of satisfaction with the alternative court process than defendants involved in regular criminal court proceedings (Boothroyd, Poythress, McGaha, & Petrila, 2003; O'Keefe, 2006; Poythress, Petrila, McGaha, & Boothroyd, 2002; Wales, Hiday, & Ray, 2010). Moreover, research suggests that MHCs are effective in reducing recidivism and improving access to treatment (Sarteschi, 2009; Sarteschi, Vaughn, & Kim, 2011). However, far less is known about the participants of these courts, or for whom these courts are most effective.

Research Background and Hypotheses

The purpose of this research was to examine "*who*" was served by MHC by identifying the demographic, socioeconomic, criminal history, psychiatric, substance use/misuse, health, motivation to change, and therapeutic alliance with the judge characteristics of program participants and determining if those characteristics were predictive of six-month post opt-in program retention and non-recidivism. Thus, the two primary research questions driving this study were: 1) What are the characteristics of MHC participants; and 2) Which participant characteristics and other related factors are predictive of program retention and legal non-recidivism in MHC programs at six months post opt-in?

Methodology

Design

This court-based exploratory cross-sectional dissertation study with six month follow-up utilized structured in-person interviews to collect original data from 148 available adults. Independent variables were conceptualized under the characteristic domains of demographic, socio-economic, criminal history, mental health, substance use, health, motivation, and therapeutic alliance with the MHC judge. The study's dependent variables were conceptualized in two domains that included program retention and legal recidivism.

Participants

All study procedures and protocols were approved by the University of Texas at Austin's Institutional Review Board, including a criminal justice advocate. This study used an availability sampling approach to recruit and select participants from four West

Coast MHCs. MHC enrollees were eligible to participate in the study if they: a) had enrolled in one of the four study site MHCs within the prior three months; b) were diagnosed with an Axis I schizo-spectrum disorder, bipolar disorder, or major depression; c) were legally competent; and d) provided informed consent. Potential study participants meeting selection criteria were approached by clinicians associated with the study site courts and interested participants were referred to one of three interviewers who provided further study information and informed consent. All study participants received a 20 dollar incentive.

Measures

Participants' characteristic data were collected utilizing a number of well-established and validated measures including the Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, de la Fuente, & Grant, 1993), Brief the Drug Abuse Screening Test-20 (DAST-20; Skinner, 1982), Medical Outcomes Health Survey Short Form 36-Item General Health Survey (SF-36; Ware & Shelbourne, 1992), Medication Adherence Rating Scale (MARS; Thompson, Kulkarni, & Sergejew, 2000), Brief Psychiatric Rating Scale (BPRS; Overall & Gorham, 1962), Modified Colorado Symptom Index (MCSI; Conrad et al., 2001), University of Rhode Island Change Assessment for Substance Abuse (URICA-SA; McConnaughy, Prochaska, & Velicer, 1983), and the Measure of Judicial Alliance (MoJA), that was created based on Skeem's (2004) Dual Role Relationship Inventory – Revised (DRRI-R). Participants' diagnoses, DSM-IV Global Assessment of Functioning (GAF; APA, 2000) scores, prior criminal history, six-month post optin program retention status and number of charges, arrests, and jail day data were provided by the participating MHC programs. Other characteristic data were self-reported by study participants. Participating MHC programs provided program retention and legal recidivism follow-up measures.

Data Collection

All standardized measures and individual self-report questions were combined into an interview booklet for consistent administration and documentation of participant responses. Following the informed consent process, participant interviews took place in a private office located either in the courthouse, jail, or congregate living programs and were conducted by one of three clinically experienced and trained interviewers, including the researcher. Participants were asked standardized interview questions following the protocols and order set out in the interview booklet where all responses were recorded. Dependent upon participants' level of functioning and interference of current psychiatric symptoms, the length of interviews ranged from 25 to 75 minutes, with an average of 40 minutes (SD = 8.39).

Participants' responses to the one open-ended question that asked participants why they chose to enroll in MHC were typed into a master Word© document verbatim for data analysis. Using a grounded theory approach (Strauss & Corbin, 1998), open,

axial, and selective coding was completed to identify categories for subsequent use in the quantitative analyses. All other collected data were entered by the researcher and stored using PASW Statistics 18 on a private password protected computer.

Data Analysis

An *a priori* power analysis was performed using G*Power 3 (Faul, Erdfelder, Lang, & Buchner, 2007) to determine the needed sample size for conducting regression analyses. The analysis was conducted using Cohen's (1988) recommended power of .80, alpha of .05, and anticipated regression models comprised of up to 15 independent variables. The results of the analysis indicated that a minimum sample of 98 would be required to detect large effect (.35), 150 to detect a medium effect (.20), and 192 to detect a small effect (.15). The current sample of 148 was sufficient to detect both medium and large effects in regression models.

All data were entered, stored, and analyzed using PASW Statistics 18. Descriptive analyses produced frequency distributions to evaluate all categorical variables. Calculations for continuous variables included frequency distribution, range, standard deviation, mean, and median scores. Prior to conducting the regression analyses, chi-square and independent samples *t*-test analyses were conducted to compare characteristic differences of those participants who remained enrolled in the MHC and those who did not, as well as those who had been arrested and those who had not at six months post opt-in. Next, those characteristic variables that differed between groups at the <.05 level of significance were retained and entered simultaneously as factors in the two logistic regression models, one assessing program retention, and the other assessing non-recidivism.

Results

Participants ranged in age from 18 to 64 (M = 36.56, SD = 11.81) and most had less than a high school education (M = 11.46, SD = 2.49). They were more typically male (61%), white (58%), unmarried (93%), unemployed (92%), and reported drawing SSI/SSDI (72%). Many participants reported living in some type of institutional care (63%), and many had experienced homelessness (42%) during the prior six months. Nearly one-half were diagnosed with schizophrenia (49%). Along with their SMI, over two-thirds (68%) of participants had a comorbid substance use disorder (68%), as well as demonstrating low levels of functioning and high levels of symptom severity as measured by the GAF, BPRS, and MCSI. Participants had slightly less-than-average health related quality of life. Nearly all of the participants had received psychiatric care (97%) and had experienced prior involuntary psychiatric hospital stays (89%).

Participants had significant prior criminal history, with over one-half (57%) having had at least one prior felony conviction. Study participants opted into MHC with

between 1 and 9 pending criminal charges (M = 2.02, SD = 1.34), with most entering the court program with 2 charges. Charges included person (e.g., domestic violence, assault, battery, etc.), property (e.g., shoplifting, theft, burglary, robbery, etc.), drug/alcohol (e.g., possession, DUI, etc.), traffic (e.g., driving with suspended license, etc.), minor crimes (e.g., disorderly conduct, trespassing, prostitution, etc.), and violations (e.g., probation revocation, failure to appear, etc.). About two-thirds (68%) of the charges were misdemeanors, and 26 percent were felonies. At 6-month follow-up, 72 percent of the participants remained enrolled in MHC and 55 percent remained arrest-free.

Program Retention

Results from chi-square and independent sample *t*-test analyses showed significant differences in the years of education, GAF scores, number of contacts with a mental health professional, and strength of therapeutic alliance with the MHC judge between retained and not retained participants. As shown in Table 1, the results of the logistic regression revealed that three of the four factors were significant predictors of the six-month program retention model including education ($Wald_{(df=1)} = 6.65$, $p = .010$), number of contacts with a mental health professional ($Wald_{(df=1)} = 3.92$, $p = .048$), and therapeutic alliance with the MHC judge ($Wald_{(df=1)} = 8.10$, $p = .004$). GAF score was not a significant predictor of retention in this regression model.

Table 1

Results of Logistic Regression Predicting Program Retention[a,b]

Factor	*B*	SE *β*	*Wald*	*df*	*p*	Odds-Ratio
Education	.66	.26	6.65	1	.010	1.94
Contact w/MH Professional	.46	.23	3.92	1	.048	1.58
MoJA	.06	.02	8.10	1	.004	1.07
Constant	-13.69	5.34	6.58	1	.010	N/A

[a] Overall model: $X^2_{(df = 4)} = 26.79$, $p < .001$

[b] Goodness-of-fit: -2LL = 37.85; $X^2_{(df = 8)} = 5.08$, $p = .749$

The results of this analysis reveal that the overall regression model significantly improved the prediction of retention among MHC participants ($X^2_{(df = 4)} = 26.79$, $p < .001$). This model provided a good fit for the data (-2 log likelihood = 37.85, Hosmer and Lemeshow, $X^2_{(df = 8)} = 5.08$, $p = .749$).The results of the Cox and Snell as well as the Nagelkerke R^2 indicated that this model accounted for 27.9 percent to 51.1 percent of the

variance in retention. However, 49.9 percent to 72.1 percent of the variance in retention remained still unaccounted for. Finally, the model correctly classified 98.6 percent of the retained and 27.3 percent of the non-retained participants, with an overall accuracy rate of 89 percent.

Results of this analysis showed that participants who had more years of education were 94.3 percent more likely to be retained. Additionally, those who had more contact with a mental health provider were 57.8 percent more likely to be retained, and those who had a stronger alliance with the MHC judge were 7 percent more likely to remain retained in MHC at six months post opt-in.

Legal Recidivism

Additionally, significant differences were found between recidivating and non-recidivating participants' age, ethnicity, education, income, housing, prior criminal history (i.e., prior charges, arrests, and jail days), GAF scores, BPRS scores, AUDIT scores, DAST scores, and comorbid substance use disorder. As displayed in Table 2,

the results of the logistic regression revealed that 4 of the 10 factors were significant predictors of non-recidivism including age ($Wald_{(df=1)} = 8.22$, $p = .004$), ethnicity ($Wald_{(df=1)} = 11.07$, $p = .001$), education ($Wald_{(df=1)} = 8.23$, $p < .004$), and income ($Wald_{(df=1)} = 5.257.88$, $p = .022$) In this model, prior arrests, GAF, BPRS, housing, and substance use and misuse were not significant predictors of non-recidivism.

Table 2

Results of Logistic Regression Predicting Non-Recidivism[a,b]

Factor	*β*	*SEβ*	*Wald*	*df*	*p*	Odds-Ratio
Age	.08	.03	8.22	1	.004	1.09
Ethnicity	-2.45	.74	11.07	1	.001	.087
Education	.43	.15	8.23	1	.004	1.54
SSI/SSDI	1.51	.65	11.07	1	.022	4.48
Constant	-7.82	3.08	6.43	1	.011	N/A

[a]Overall model: X^2 (df = 11) = 92.63, $p < .001$
[b]Goodness-of-fit: -2LL = 97.91; X^2 (df = 8) = 7.62, $p = .472$

Furthermore, the results of this analysis revealed that the overall regression model significantly improved the prediction of retention among MHC participants ($X^2_{(df = 10)} =$

92.63, $p < .001$). This model provided a good fit for the data (-2 log likelihood = 104.54, Hosmer and Lemeshow, $X^2_{(df = 8)} = 7.62$, $p = .472$). The results of the Cox and Snell and the Nagelkerke R^2 indicated that this model accounted for 50.4 percent to 67.7 percent of the variance in non-recidivism. However, this left 32.3 percent to 49.6 percent of the variance in non-recidivism still unaccounted for. Finally, the model correctly classified 78.9 percent of those who recidivated and 85.3 percent of those who did not recidivate, with an accuracy rate of 82.6 percent.

Furthermore, results of this analysis showed that participants who were older were 8.7 percent more likely to be in the non-recidivist group. Those who were white were 91.3 percent more likely to be non-recidivists and having more years of education resulted in being 54.2 percent more likely to be arrest free. Finally, those who did not rely on SSI/SSDI as their primary source of income were 347.9 percent more likely to be fall in the non-recidivist group.

Discussion

This study was conducted to identify characteristics of MHC participants and determine if those characteristics were predictive of six-month follow-up measures of program retention and non-recidivism. Participants who were retained were significantly older and more educated, than those who were not retained. Furthermore, the study confirmed a predictive relationship between more years of education, more frequent contact with a mental health provider, and a stronger relationship with the MHC judge with six-month program retention. Participants who did not recidivate were significantly older, more educated, white, lived independently, had fewer prior charges, arrests, and jail days, higher levels of functioning, less severe psychiatric symptoms, and less serious alcohol and drug use/misuse than the recidivist group. Moreover, being older, white, more educated, and having income other than SSI/SSDI were significantly predictive of six-month non-recidivism.

The findings from this study provide a contribution to the fields of social work and criminal justice, by extending the current knowledge about who MHC participants are, who is more likely to be retained and not retained, and who is more likely to recidivate and not recidivate. Future research should include more mental health court sites throughout the country to increase sample size and improve geographic Future research should include more mental health court sites throughout the country to increase sample size and improve geographic representation as well as include longer follow-up periods.

Practitioners, policy makers, and researchers are encouraged to continue to define what constitutes participant and program success in MHCs, identify those participant and program characteristics most associated with achievement of positive outcomes for program participants, and compare those outcomes to traditional process and other

diversionary approaches to assess the utility and effectiveness of these alternative problem-solving courts.

Utility for Social Work Practice

As social workers are the single largest provider of community-based mental health services in the United States (NASW, 2008), the intersection of our nation's mentally ill and their increasing numbers found within the criminal justice system challenges the profession to find empirically-supported, effective, and humane ways to intervene with this vulnerable and powerless client group in reducing the social injustice of criminalization. This was the first study to assess a comprehensive of MHC participant factors as predictors of program retention and non-recidivism in MHC. Findings in the current sample were similar to prior findings within general SMI offender populations. While MHCs cannot change personal characteristics (e.g., age, ethnicity, etc.), these findings suggest that programs should consider fully assessing participants' substance use and providing integrated substance abuse and mental health treatment to better reduce legal recidivism of their participants. Additionally, MHCs can train team members, including judges, on establishing a working alliance, which was shown to be predictive of program retention. MHC programs may use these findings to better assess potential participants, provide more targeted treatment and other related support services, and consider ways to strengthen their working alliance with participants. Future research should assess other factors known to be related to recidivism in general SMI populations and continue to better understand how what MHC program conditions contribute most to better participant outcomes.

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